

Remarks/Arguments

This Response is provided in response to the Final Office Action mailed October 20, 2006, in which the Examiner rejected claims 1-9, 13, and 15-29 under 35 U.S.C. §102(e) as being anticipated over the prior art, and in which the Examiner rejected claims 10-12 and 14 under 35 U.S.C. §103(a) as being obvious in view of the prior art. In view of the present amendments and remarks, the Applicants believe that claims 1-29 are presently in condition for allowance.

Rejection of Claims Under 35 U.S.C. §102(e)

The Office Action rejected claims 1-9, 13, and 15-29 under 35 U.S.C. §102(e) as being unpatentable over United States Patent No. 6,763,380 issued to Mayton et al., July 13, 2004 (Mayton). The Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation means a lack of novelty, and is a question of fact which is reviewed by the reviewing court using a substantial evidence standard. *Brown v. 3M*, 60 USPQ2d 1375 (Fed. Cir. 2001); *Baxter Int'l, Inc. v. McGraw, Inc.*, 47 USPQ2d 1225 (Fed. Cir. 1998). To anticipate a claim, every limitation of the claim must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 58 USPQ2d 1286 (Fed. Cir. 2001). *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushika Co.*, 122 S.Ct. 1831 (2002). Each such limitation must be found either expressly or inherently in the prior art reference. *Schering Corporation v. Geneva Pharmaceuticals, Inc.*, 02-1540, Decided August 1, 2003 (Fed. Cir. 2003). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

The cited reference fails to show testing over two paths simultaneously as recited by independent claims 1, 15, 16, and 21.

As discussed in a telephonic interview with Examiner Shin on July 17, 2006, one embodiment of the Applicants' present invention is directed to methods and apparatus for

performance measurement of different network routes between devices. *See e.g.*, Specification pg. 5, lines 21-22. Typically, a network includes multiple paths between a first and a second device. *See e.g.*, Specification pg. 5, lines 22-23. A preferred embodiment of the Applicants' present invention includes a first test of a first type conducted over a first path between a first and second device, and a second test of a first type conducted over a second path between a first and second device simultaneously. *See e.g.*, Specification pg. 5, lines 23-25. In preferred and claimed embodiments, a single test signal is applied along two separate paths between a first and second device simultaneously so that comparative data can be derived regarding each of the separate paths. *See e.g.*, Specification pg. 5, lines 25-27.

Turning to the claims, independent claims 1, 15, and 16 recite *inter alia*,
"the first and the second performance tests are performed
simultaneously." (Emphasis Added)

Similarly, independent claim 21 recites *inter alia*,
"a performance test is conducted between the first device
and the second device over each of the first and second
transport networks *simultaneously*." (Emphasis Added)

In the first portion of the Examiner's arguments as to why Mayton anticipates independent claims 1, 15, 16, and 21 with respect to simultaneous testing, the Examiner states, in a section completely devoid of any citation to a teaching in the prior art of record, that "A computer system with a processor can only execute one instruction at a time. Therefore, a computer can [only] do one action at a time. It is not possible to start two tests at the same instantaneous point in time...from a human perspective; it appears that a computer system can perform multiple actions at the same time. In actuality, only one action at a time can be performed." *See* Final Office pg. 3, lines 4-9. The Applicants do not necessarily agree with the proposition that a computer can do only one action at a time, however assuming *arguendo* that the examiner is correct, the current claims 1, 15, 16, and

21 do not claim a processor that performs a plurality of actions at one time. Instead, what is claimed is that the tests are performed simultaneously. Ample support for simultaneous testing of a plurality of paths between a first and second device exists in the specification. Examples in the current application include at least two separate means and methods for the simultaneous testing of two network paths.

A first example uses a processor 281 that is described as being connected to network interfaces 284 by means of multiple communication mechanisms 289 to perform one or more tasks or processes. *See* Specification pg. 9, lines 6-11; *See also* Fig. 2B. Based on this description, the processor, for example, can execute a single test instruction (a test execution command for example) and distribute that signal onto two communication mechanisms 289 to deliver the signal to one or more network interfaces 284 for the simultaneous testing of a network paths. Thus, through a processor executing a single command, two tests can be executed simultaneously.

A second example involves a technique that includes using processing loops to queue a test signal until a performance test can be conducted simultaneously. *See* Specification pg. 11, lines 5-11; *See also* Fig. 5B. By using this technique, a first test signal, for example, is issued and queued using a processing loop while a second test signal is executed and sent to the network interface. When the second test signal arrives at the network interface, a simultaneous performance test between first and second devices on two paths is executed simultaneously.

Thus, contrary to the Examiner's position, the Applicants do have a system which allows for a first and second performance test to be executed simultaneous on two paths. As stated above, there is at a minimum, two separate ways detailed in the specification to execute the simultaneous testing. The first example detailed a way of testing the paths wherein the processor issues one command and then the command is distributed onto two paths. The second example detailed the processor executing commands one after another then synching the tests through the use of a processing loop to queue the first command

until the second command is received whereby simultaneous testing can be initiated. Thus, regardless of the Examiner's contention that a computer system with a processor can only execute one instruction at a time, the system detailed in independent claims 1, 15, 16, and 21 has the capability to utilize performance tests for the testing of two paths or transport networks simultaneously.

In further explaining how Mayton anticipates independent claims 1, 15, 16, and 21 with respect to simultaneous testing, the Examiner states, "The Examiner must again state that performance tests completed utilizing an extremely short time period are considered to be simultaneous, and that the tests are performed essentially simultaneously. In addition, performance tests completed utilizing user initiation can be performed essentially simultaneously, since initiation can be performed simultaneously." See Final Office Action pg. 4, lines 1-5.

To support the first comment above, that is "The Examiner must again state that performance tests completed utilizing an extremely short time period are considered to be simultaneous, and that the tests are performed essentially simultaneously," the Examiner cites Mayton col. 3, lines 22-24. See Final Office Action pg. 7, lines 1-4. This section of Mayton states, "Network performance measurements may be obtained on a repeated basis, for example, pursuant to a test schedule." Claims 1, 15, 16, and 21 are directed to simultaneous testing, not periodic scheduled testing. Even if multiple testing were to be scheduled within a short period of time, a proposition for which the Examiner can not cite any portion of Mayton as teaching because no such teaching is recited in Mayton, Mayton would still fail to anticipate the limitations of claims 1, 15, 16, and 21. The language of Mayton specifically states that measurements may be obtained on a repeated basis. A repeated basis necessitates a period of time pass between the measurements, that is, the measurements are repeated, and as such, one measurement follows another. To phrase it differently, the measurements disclosed in Mayton are necessarily sequential measurements.

Additionally, as stated above, the concept of testing the paths within a short period of time is not recited in Mayton. Instead, the proposition comes from the Examiner's reliance on the Applicants disclosure through hindsight reasoning as to how the device of Mayton could conceivably be utilized in a manner consistent with claims 1, 15, 16, and 21. Regardless of the impermissible use of hindsight reasoning in stating that the testing of Mayton occurs within a short period of time, testing within a short period of time still is not equivalent to simultaneous testing. Simultaneous measurements are done at the same moment and as such, are not sequential. On the other hand, tests that are performed on a repeated basis are sequential and therefore, even if one were to ignore the fact that the Examiner has engaged in impermissible hindsight reasoning to distort the teachings of Mayton into a semblance of alignment with the limitations of claims 1, 15, 16, and 21, the teachings of Mayton still fail to anticipate claims 1, 15, 16, and 21 because sequential testing does not anticipate simultaneous testing.

Moreover, the Examiner cites Mayton col. 3, lines 28-29 for the proposition that complete performance tests for each connection occur at the same time. *See* Final Office Action pg. 7, lines 4-5. This citation is ripped out of the middle of a sentence and applied out of context in an attempt by the Examiner to find any possible language in Mayton that can support the Examiner's contention that Mayton anticipates independent claims 1, 15, 16, and 21. The language of the entire sentence from which the Examiner has taken the partial teaching reads as follows, "A traceroute may be initiated for a plurality of connections (for example, client to server) on a repeated basis, for example, a periodic basis, and the performance measurements for each connection for the same time period may be associated with the detected routing information to provide baseline information relating to the performance of one or more routes which support each connection." Mayton, col. 3, lines 22-32. The remainder of the Mayton patent discusses the term "for the same time period" not as simultaneous testing (as the Examiner contends), but rather as running a traceroute between the first device and the second device within a determined time period of a time at which the associated network performance measurements are obtained. *See* Mayton col. 3, lines 61-65; col. 7, line 61 – col. 8, line 18; col. 13, lines 20-23; col. 13, lines

33-37; col. 14, lines 19-26. This running of a traceroute within a predetermined time is more aptly described as, for example, executing a baseline test and then running a comparison test that is at or near the same time subsequently. For example, running a baseline test on Jan. 1 to establish a baseline amount of time that a test should take to complete at or very near to 1 pm and then running a comparison test at or near 1 pm on Jan. 2, 3, 4, etc.

It is this periodic nature of the subsequent traceroutes disclosed in the Mayton patent that teaches away from the Examiner's reading of the "same time period" as simultaneous testing analogous to the testing claimed in claims 1, 15, 16, and 21. Testing during the same time period on a clock, for example every day running a test somewhere between 5 seconds before and 5 seconds after 1 pm, does not anticipate simultaneous testing as claimed in claims 1, 15, 16, and 21. Thus the section relied upon by the Examiner teaches testing on a repeated basis, i.e. sequential testing, and thus the teachings of Mayton do not anticipate utilizing performance tests for the testing of two paths or transport networks simultaneously.

With respect to the second comment listed above, namely "In addition, performance tests completed utilizing user initiation can be performed essentially simultaneously, since initiation can be performed simultaneously," there is no support within the four corners of the reference that a user is capable of initiating a performance test simultaneously with either an active, passive, or scheduled test. The Examiner has merely stated that a user could initiate a test essentially simultaneously. The rationale as to why essentially simultaneously does not anticipate simultaneously was discussed above (see the arguments as to why sequential testing does not anticipate simultaneous testing) and therefore will not be repeated here, however, the conclusion is unchanged and applies here again: Simultaneous testing does not anticipate simultaneous testing.

There is no showing in Mayton that a user is even capable of initiating a test simultaneously with a second active, passive, or scheduled test. However, assuming

arguendo that the Examiner is correct in the assertion that it is possible to show that a user could somehow initiate a test simultaneously with a second active, passive, or scheduled test, there is no teaching in Mayton showing a) how a user would do it, or b) why a user would do it. These two issues are intertwined. There is no teaching in Mayton as to how a user would initiate a test at the same time as a second active, passive, or scheduled test because there is no reason as to why it would be beneficial for a user practicing the invention in the Mayton reference to initiate such a test. It would defeat the purpose of the Mayton invention to initiate a secondary test simultaneously with a first test because the tests run in Mayton are designed to check a path against a previously measured baseline value. To initiate two tests simultaneously to check against a baseline path value would be redundant and therefore would not occur. To date, the examiner has failed to point to any teaching in Mayton that would discuss this type of testing because no such teaching exists, since it would lead to redundant testing that would improve neither the efficiency of the Mayton invention nor aid in achieving the testing goals expressed in Mayton.

Furthermore, the Examiner has attempted to rely on Mayton col. 13, lines 30-32 which states in full, "In addition, initiation of traceroute operations may be provided responsive to a specific user request" to show that a user would initiate a closely to simultaneous secondary test. The fact that a user may initiate a trace route at some point does not show that a user would initiate a traceroute simultaneously with a secondary test, nor does it show why a user in the context of the Mayton reference would ever initiate one of these user traceroutes simultaneously with a second test, since as pointed out above, it would lead to redundant test results.

Therefore, since Mayton is silent as to the teaching that a user would initiate a test simultaneously with a second test, the Applicant is left with the language that the Examiner used, "user initiation can be performed essentially simultaneously" (Emphasis added). See Office Action pg. 4, line 4. The Examiner has failed to point out any teaching in Mayton that a user would initiate a simultaneous test in the manner set forth by the Examiner. As such, the Examiner has resorted to mere conjecture that there exists a possibility that the

invention of Mayton allows for such an event to occur. However, in making this leap, the Examiner has again used impermissible hindsight reasoning in using the teachings in the instant application against the Applicants. Absent the roadmap given to the Examiner in the instant application disclosing utilizing performance tests for the testing of two paths or transport networks simultaneously, there is no reason for a hypothetical user of the Mayton invention, given the teachings in Mayton, to initiate a test nearly simultaneously with a secondary test. As shown above, the secondary test would be redundant when given the framework of the invention of Mayton. Thus, absent the hindsight reasoning employed by the Examiner in crafting the hypothetical actions of a user in light of the Applicant's specification, there is no teaching in Mayton which anticipates the limitations of claims 1, 15, 16, and 21 with respect to performing simultaneous tests.

As described in the text above, there is no showing in the Mayton reference of utilizing performance tests for the testing of two paths or transport networks simultaneously as claimed in claims 1, 15, 16, and 21 as required under §102. Thus, Mayton fails to anticipate every limitation of independent claims 1, 15, 16, and 21. Furthermore, based at least upon their dependency to claims 1, 16, and 21, claims 2-14, 17-20, and 22-29 are not anticipated by Mayton. For at least these reasons among others, the Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102, and passage of claims 1-29 to allowance.

Rejection of Claims Under 35 U.S.C. §103(a)

The Office Action further rejected claims 10, 11, and 14 under 35 U.S.C. §103(a) as being unpatentable over Mayton in view of United States Patent No. 6,360,268 issued to Stephen Silva et al., March 19, 2002 (Silva). This rejection is respectfully traversed.

Legal Precedent

The United States Court of Appeals for the Federal Circuit have provided specific guidance regarding the kind of factual findings needed to determine a reason, suggestion, or motivation to combine references in support of a prima facie showing of unpatentability

under 35 U.S.C. §103(a). "The reason, suggestion, or motivation to combine may be found explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, "leading inventors to look to references relating to possible solutions to that problem." *Pro-Mold & Tool Co. v. Great Lake Plastics, Inc.*, 75 F.3d 1568, 1572, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996) (internal citations omitted); *In re Rouffer*, 149 F.3d at 1357, 47 USPQ2d at 1458. While the references need not expressly teach that the disclosure contained therein should be combined with another, see *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1472, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997), the showing of combinability must be "clear and particular." *In re Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617." *Ruiz v. A.B. Chance Co.*, 57 USPQ2d 1161 (Fed. Cir. 2000).

The cited references, taken alone or in combination, fail to teach or suggest features recited by claims 10, 11, and 14.

Claims 10, 11, and 14 depend from independent claim 1, and include all limitations of independent claim 1. As discussed above in the section titled "Rejection of Claims Under 35 U.S.C. §102(e)", Mayton fails to teach or suggest the recitation in claim 1 of "the first and the second performance tests are performed **simultaneously**." Emphasis Added. Moreover, Silva supplies neither the missing elements nor a "clear and particular" showing for the combinability of the two references. Thus, neither Mayton nor Silva, taken alone or in combination, teach the above recitations of claim 1. Due to at least the dependencies of claims 10, 11, and 14 on claim 1, the cited references, taken alone or in hypothetical combination, cannot render obvious claims 10, 11, and 14. For at least these reasons, the Applicants request withdrawal of the rejection of claims 10, 11, and 14 under 35 U.S.C. §103(a), and passage of same to allowance.

Rejection of Claims Under 35 U.S.C. §103(a)

The Examiner further rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Mayton in view of U.S. Publication No. 2003/0036865, inventor ZhangQing Zhuo et al., February 20, 2003, (Zhuo).

The cited references, taken alone or in combination, fail to teach or suggest features recited by claim 12.

As discussed above in the section titled "Rejection of Claims Under 35 U.S.C. §102(e)", Mayton fails to teach or suggest the recitation in claim 1 of "the first and the second performance tests are performed **simultaneously**." Emphasis Added. Moreover, Zhuo supplies neither the missing element nor a "clear and particular" showing for the combinability of the two references. Thus, neither Mayton nor Zhuo, taken alone or in combination, teach the above recitations of claim 1. Due to at least the dependency of claim 12 on claim 1, the cited references, taken alone or in hypothetical combination, cannot render obvious claim 12. For at least these reasons, the Applicants request withdrawal of the rejection of claim 12 under 35 U.S.C. §103(a), and passage of same to allowance.

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Conclusion

The Applicants respectfully submit that all pending claims should be in condition for allowance. This Response is intended to be a complete response to the non-final Office Action mailed April 6, 2006.

However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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